UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/514,412	06/29/2005	Joerg Roth	DASI3001/EJD	4371

23364 7590 07/08/2008

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER	
SINGH, HIRDEPAL	
ART UNIT	PAPER NUMBER
2611	
MAIL DATE	DELIVERY MODE
07/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/514,412	ROTH ET AL.	
	Examiner	Art Unit	
	HIRDEPAL SINGH	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on April 04, 2008. Claims 10-19 are pending and have been considered below.

Response to Arguments

2. Applicant's arguments filed April 04, 2008 have been fully considered but they are not persuasive.

3. Applicant argues "... Stinus et al refers to a programmable field mounted device. In order to program the device ***during operation,*** the device has at least two memory areas ... Stinus et al only refers to the reconfiguration of software. There is no disclosure that a reprogrammable logic device should be used for software and hardware, enabling the change of software *and* hardware to create a completely different type of field device. Since the present invention, as is claimed by claim 10, calls for reprogrammable software and hardware, and since neither Gillen nor Stinus et al teach this feature, there is then no basis for concluding that claim 10, and those claims which depend therefrom, are unpatentable under 35 USC 103 (a) (see page 5, Remarks).

4. Examiner respectfully traverse Applicant's opinion because the Prior Art references teach all the claim limitations and specifically secondary reference Stinus et al. (US 2005/0177708) teaches the above argued limitation, that both hardware and software are configured on the reprogrammable device (as described in the original disclosure of present invention on page 7, lines 6-12 "...Memory range A contains a

description of the hardware of the logic device LD, while memory range B contains the sequential program for the embedded controller...") in a similar way as in the present invention i.e. the field device have a memory and first memory area storing programmable first device configuration, see paragraphs 0016-0017, in other words the memory area has device or hardware configuration; and further Stinus describes that the software can be reprogrammed to reconfigure field device see paragraph 0049.

5. Therefore, the argued limitations are taught by the cited prior art references, so the rejection to the claims is upheld.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillen (US 2003/0208290) in view of Stinus et al. (US 2005/0177708).

Regarding claim 10:

Gillen discloses a programmable field measuring instrument/device comprising;

entire control takes place from a control (superordinated unit) center, (paragraph 0003, lines 13-20; figure 1);

field measuring device has a sensor (module) which acquires the process data and ADC converts it to digital form (paragraph 0025, lines 1-4, fig 1);

a control unit or processor for evaluating/processing the measured signal (paragraph 0025, lines 4-8) connected to sensor module (figure 1 sensor connected to control unit);

communication module for communication with control unit through data bus line (paragraph 0027, lines 1-6);

a reprogrammable device/memory in field measuring device to install new control program (paragraph 0008, lines 18-38), and the connector terminal serves as update interface to transfer new control programs (paragraph 0031, lines 1-4);

the control unit, the microprocessor included in the device are interpreted as logic devices and are reprogrammable (figure 1; paragraph 0008, lines 16-24; paragraph 0025).

Gillen discloses all of the subject matter as described above except for specifically teaching that at system start, both hardware and software are configured on said reprogrammable logic device LD in a desired fashion thereby matching the particular demands of the application of said sensor module SM.

However, Stinus in the same field of endeavor discloses a programmable field mounted device where at system start, both hardware and software are configured on said reprogrammable logic device LD in a desired fashion thereby matching the particular demands of the application (the field device have a memory, and first memory area is storing programmable first device configuration, see paragraphs 0016-0017, i.e. the memory area has device or hardware configuration; and paragraphs 0008 and 0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to get the field device configurable at the system start, both by means of software and hardware in order to make it useful by making the required modifications in the software and accordingly in the hardware for a particular application and also in a situation like power failure to get the device reconfigured for the assigned task.

Regarding claim 11:

Gillen discloses all of the subject matter as described above and further discloses that programmable field device 10 has communication module for communication between control unit and control (superordinated) center (fig 1, paragraph 0027, lines 1-5).

Regarding claim 12:

Gillen discloses all of the subject matter as described above and further discloses that the field measuring device 10 has sensor module (fig 1, paragraph 0025, lines 1-4).

Regarding claim 13:

Gillen discloses all of the subject matter as described above and further discloses that the field measuring device 10 has digital components of (sensor, ADC) sensor module (fig 1, paragraph 0025, lines 3-8).

Regarding claim 14:

Gillen discloses all of the subject matter as described above and further discloses that the field measuring device has control unit, processor, a memory with different control programs (paragraph 0016, lines 1-4; paragraph 0025, line 6).

Regarding claim 15:

Gillen discloses all of the subject matter as described above and further discloses that the field measuring device's functionality can be changed by a control program which is called from the memory during the initialization/configuration of control unit (designated as SOPC) (paragraph 28, lines 1-5).

Regarding claim 16:

Gillen discloses all of the subject matter as described above and further discloses a data interface 22 with databus line for communication according to Profibus PA standard, Foundation Fieldbus Controller, CAN Controller (paragraph 0027, lines 8-14).

Regarding claim 17:

Gillen discloses all of the subject matter as described above and further discloses that the input/output unit connected to the control unit for indicating outputting values, manual (analog) inputting values (fig 1, paragraph 0027, lines 1-6).

Regarding claim 18:

Gillen discloses all of the subject matter as described above and further discloses that the field measuring device 10 has functionality (functional block) in form of (software) control program (fig 1, paragraph 007, lines 1-5).

Regarding claim 19:

Gillen discloses all of the subject matter as described above and further discloses that the flexible (reprogrammable) functionality can be achieved by configuring the device by Foundation Fieldbus, Profibus (paragraph 0027, lines 8-14).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HIRDEPAL SINGH whose telephone number is (571) 270-1688. The examiner can normally be reached on Mon-Fri (Alternate Friday Off) 8:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. S./
Examiner, Art Unit 2611
/Shuwang Liu/
Supervisory Patent Examiner, Art Unit 2611